

September 1981
Final Report

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U.S. Department
of Transportation
National Highway
Traffic Safety
Administration

Automobile Driver On-Road Performance Test

Volume II—Administrator's Manual

Kenard McPherson
A. James McKnight

National Public Services Research Institute
123 North Pitt Street
Alexandria, Virginia 22314

Contract No. DOT HS-9-02092
Contract Amount \$150,043

This document is available to the U.S. public through the National Technical Information Service, Springfield, Virginia 22161

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16. Abstract This report provides procedures for setting up, administering, and scoring the Automobile Driver On-Road Performance Test (ADOPT). The ADOPT checks 21 separate driving performances. Performances are checked at pre-determined locations along a 10-minute route and are scored against specified criteria. The highly objective scoring system produces correlations across examiners in excess of .8 and correlations across routes in excess of .7. The ADOPT is primarily a measure of skill. While many of the performances checked do not require skill to perform (e.g., signaling, mirror checks), a high level of skill is required to perform them and maintain control of the vehicle at the same time. The ADOPT as a whole correlates approximately .5 with a measure of the vehicle handling skills.					
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METRIC CONVERSION FACTORS

Approximate Conversions to Metric Measures

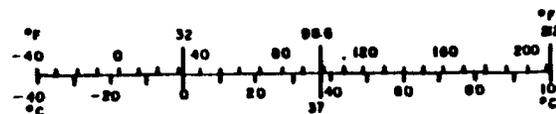
Symbol	When You Know	Multiply by	To find	Symbol
LENGTH				
in	inches	2.5	centimeters	cm
ft	feet	30	centimeters	cm
yd	yards	0.9	meters	m
mi	miles	1.6	kilometers	km
AREA				
in ²	square inches	6.5	square centimeters	cm ²
ft ²	square feet	0.9	square meters	m ²
yd ²	square yards	0.8	square meters	m ²
mi ²	square miles	2.6	square kilometers	km ²
	acres	0.4	hectares	ha
MASS (weight)				
oz	ounces	28	grams	g
lb	pounds	0.45	kilograms	kg
	short tons (2000 lb)	0.9	tonnes	t
VOLUME				
teaspoon	teaspoons	5	milliliters	ml
tablespoon	tablespoons	15	milliliters	ml
fl oz	fluid ounces	30	milliliters	ml
c	cup	0.24	liters	l
pt	pint	0.47	liters	l
qt	quart	0.95	liters	l
gal	gallon	3.8	liters	l
ft ³	cubic feet	0.03	cubic meters	m ³
yd ³	cubic yards	0.76	cubic meters	m ³
TEMPERATURE (exact)				
°F	Fahrenheit temperature	5/9 (after subtracting 32)	Celsius temperature	°C

* 1 in = 2.54 (exactly). For other exact conversions and more detailed tables, see NBS Misc. Publ. 286, Units of Weights and Measures, Price \$7.25, MD Catalog No. C13.10.286.



Approximate Conversions from Metric Measures

Symbol	When You Know	Multiply by	To find	Symbol
LENGTH				
mm	millimeters	0.04	inches	in
cm	centimeters	0.4	inches	in
m	meters	3.3	feet	ft
km	kilometers	0.6	miles	mi
AREA				
cm ²	square centimeters	0.16	square inches	in ²
m ²	square meters	1.2	square yards	yd ²
km ²	square kilometers	0.4	square miles	mi ²
ha	hectares (10,000 m ²)	2.5	acres	
MASS (weight)				
g	grams	0.035	ounces	oz
kg	kilograms	2.2	pounds	lb
t	tonnes (1000 kg)	1.1	short tons	
VOLUME				
ml	milliliters	0.03	fluid ounces	fl oz
l	liters	2.1	pints	pt
l	liters	1.06	quarts	qt
l	liters	0.26	gallons	gal
m ³	cubic meters	36	cubic feet	ft ³
m ³	cubic meters	1.3	cubic yards	yd ³
TEMPERATURE (exact)				
°C	Celsius temperature	9/5 (then add 32)	Fahrenheit temperature	°F



PREFACE

The Automobile Driver On-Road Performance Test (ADOPT) is intended for use by State departments of motor vehicles as a licensing road test. The ADOPT was developed by the National Public Services Research Institute (NPSRI) for the U.S. Department of Transportation, National Highway Traffic Safety Administration (NHTSA), under Contract No. DOT-HS-9-02092. Principal Investigators during various phases of the project were Drs. Kenard McPherson, A. James McKnight, and Mark Lee Edwards.

The project staff is grateful to Dr. Stephen V. Versace and Michael F. Smith, NHTSA Contract Technical Managers, for their guidance throughout the project. We acknowledge the contributions of the Project Advisory Committee members, who graciously provided their time and advice to the staff. Committee members were: Wayne Green, Nebraska Department of Motor Vehicles; Dr. Margaret H. Jones, University of Southern California; John F. O'Brien, New York State Department of Motor Vehicles; Mike Rudisill, Michigan Department of State; Maj. Howard R. Showe, Maryland Motor Vehicle Administration; and Maj. Thomas Tennery, Oklahoma Department of Public Safety. We also appreciate the assistance of Rodger Koppa, Texas Transportation Institute, Texas A & M University.

The staff was assisted during the pilot and field tests by the staff of the Oklahoma Department of Public Safety (DPS). In particular, we acknowledge the help of Maj. Thomas Tennery, Capt. Bill Williams, Capt. John Holland, and Lt. Kenneth Thompson, who were in charge of the DPS effort. We are grateful to the examiners from the Oklahoma City and Tulsa/Jenks examination offices who provided their time and assistance; Jim Doane (coordinator), James Stone, Barbara Gicaletto, David Brandt, Ralph Biggs, Jerry Emmons, Jerry Barr, and Frank Lane.

Two additional volumes complete this report series:

- o Automobile Driver On-Road Performance Test, Volume I:
"Final Report"
- o Automobile Driver On-Road Performance Test, Volume III:
"Examiner's Manual"

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INTRODUCTION

The Automobile Driver On-Road Performance Test (ADOPT) is the product of more than two years of intensive research and evaluation. A discussion of the impetus for the project and a detailed description of the work carried out are provided in the project final report.* A brief background of the study methods is provided below, followed by a discussion of certain characteristics of the ADOPT that distinguish it from most other automobile road tests.

BACKGROUND

The ADOPT was developed from a systematic analysis of critical driving tasks. In the course of the project, National Public Services Research Institute project staff conducted an in-depth review of the literature related to assessment of driver performance and of the research conducted in the development of other on-road performance tests. Candidate behaviors for the ADOPT were screened by panels of experts, and behaviors selected for further consideration were subjected to extensive measurement studies. Those studies assessed the abilities of both novice and experienced drivers to establish standards of performance and helped to identify those behaviors most appropriate for an on-road test. The studies also helped to determine optimal methods of measuring performance.

Following the development of a preliminary version of the test, the ADOPT was administered to licensing applicants during a pilot test in Oklahoma. On the basis of pilot test results, the ADOPT was revised and extensively field tested, again by administration to licensing applicants in Oklahoma.

At the conclusion of the field test, the ADOPT was prepared in final form. This Manual is one of two produced by the project and provides information and instructions for licensing agency administrators who wish to implement the ADOPT in their licensing operations. The second manual was prepared for licensing examiners and explains how to score the test.

* Automobile Driver On-Road Performance Test (ADOPT): Final Report, prepared for the U.S. Department of Transportation, National Highway Traffic Safety Administration, under Contract No. DOT-HS-9-02092, 30 September 1981.

CHARACTERISTICS OF THE ADOPT

The ADOPT is a series of assessments of specific behaviors or performances of an applicant. The examiner makes the assessments---called performance checks--at designated locations on the test route. Most performances are checked several times during the test.

METHODS OF ASSESSMENT

In the ADOPT, the examiner assesses only specific performances and only at designated locations on the test route. Performances at other than designated locations are not assessed. This ensures accurate assessment. During many road tests, examiners must look for any possible applicant error at all times. This makes accurate assessment very difficult. It also prevents examiners from concentrating their attention upon those behaviors that are most critical to safety.

Because examiners assess specific performances at specific locations, they are able at the conclusion of the test to tell the applicant not only the kinds of errors the applicant made but the precise locations at which they were made.

METHODS OF SCORING

ADOPT scoring requires the examiner to look for both correct and incorrect performance and to score accordingly. This is a more equitable and reliable system of scoring than one that considers only incorrect performance.

Scoring Criteria

The examiner judges each performance by using specific criteria. If the performance meets the criteria, it is scored YES. If it does not, it is scored NO. Where a valid assessment cannot be made, the performance is scored N/A (not applicable).

The applicant must always be scored N/A when:

- o The examiner fails for any reason to make a check.
- o The examiner is unsure whether the applicant performed correctly.
- o Traffic or other conditions prevent adequate assessment.

A detailed explanation of scoring procedures is provided in the section called "Individual Performance Checks."

Total Score

Total or overall score is calculated by adding the number of YES performances and dividing by the total number of performances, YES and NO. Performances scored N/A are not a factor in the total score.

$$\text{TOTAL SCORE} = \frac{\text{Total YES Scores}}{\text{Total YES Scores} + \text{Total NO Scores}}$$

In other words, an applicant's total score is the ratio of correct performances to the total number of performances, correct and incorrect.

Pass/Fail Determination

Refer to departmental policy for information regarding:

- o Passing score.
- o Conditions calling for test termination.
- o What to do when an applicant violates a traffic law.

TESTING REQUIREMENTS

Use of the ADOPT requires a test route, a score sheet, and limited equipment.

Test Route

A test route must be selected that is of sufficient length and provides a sufficient variety of traffic and road situations to permit all required performances to be assessed. An appropriate route will be from three to five miles in length with an administration time of 10 minutes.

Score Sheet

A score sheet must be prepared for use by examiners. The score sheet has three purposes:

- o It contains route information and lists the locations of required performance checks.
- o It includes oral instructions that must be given to applicants.
- o It provides space for recording individual performance scores and for calculating the total score.

Instructions for preparing the score sheet are presented later in this Manual.

Equipment

No special equipment is required to administer the ADOPT. Cones and flags may be used to mark boundaries during one portion of the test. Examiner training requires an accelerometer. Use of the accelerometer is discussed later in this Manual.

RELIABILITY

The ADOPT provides a reliable estimate of applicant driving performance regardless of differences among examiners or among the routes over which the test has been given.

Examiner Reliability---Because of the objective scoring system employed by the ADOPT, it has a high interexaminer reliability ($r = .84$). This means that administration of the ADOPT to the same applicant by different examiners results in the same score.

Inter-Route Reliability---Because the ADOPT scoring system takes into account differences in the road and traffic conditions faced by applicants, the inter-route reliability is quite high ($r = .76$). This means that administration of the ADOPT to the same applicant across different routes results in the same score.

VALIDITY

The ADOPT is designed as a measure of applicant driving skill. Some of the performance checks assess skill directly. These include checks of braking, lanekeeping, and adjusting speed to turns. Other performance checks assess skill indirectly through observation of safe driving practices, such as signaling lane changes and checking mirrors. Research conducted in developing the ADOPT showed that there is no relationship between an applicant's use of safe driving techniques during a road test and the same driver's use of the same techniques after leaving the license station. The same research showed, however, that use of safe driving practices correlates with a specific test of driving skills administered on a specially designed driving range ($r = .56$).

The reason for the correlation between skill and use of safe driving practices is uncertain. The best explanation is that applicants who lack skill in handling the vehicle must devote their full attention to controlling the vehicle's motion. They are unable to divide attention between vehicle control and safe operating practices. As a result, they forget to use turn signals or check their mirrors.

PERFORMANCES ASSESSED

The performances assessed by the ADOPT are listed below. Two-letter codes are assigned to each performance. The codes are used on the test score sheet to facilitate reference to the performances.

Code/Performance

H Handling:
HT Handling: Time
HD Handling: Direction Changes
HS Handling: Striking of Boundaries
HO Handling: Observing
HP Handling: Position
BA Brake Application
RS Rapid Stop
L Lanekeeping
LS Lanekeeping: Straight
LC Lanekeeping: Curve
LT Lanekeeping: Turn
GS Gap Selection
M Maintaining Speed
MS Maintaining Speed: Straight
MC Maintaining Speed: Curve
MT Maintaining Speed: Turn
S Selecting Speed
SC Selecting Speed: Curve
ST Selecting Speed: Turn
O Observing
OB Observing: Behind
OR Observing: Rear Quarter
OS Observing: Side
CL Communicating: Lane Change
RT Restricted Travel

STEPS IN IMPLEMENTING THE ADOPT

Implementing the ADOPT involves five steps:

1. Review Test Situations
2. Select Test Locations
3. Designate the Route
4. Prepare Printed Materials
5. Train Examiners

1. REVIEW TEST SITUATIONS

The section at the end of this Manual, "Individual Performance Checks," provides descriptions of the performances and test situations, and lists the scoring criteria for each check. This section must be reviewed by those persons who will be responsible for choosing a route for the ADOPT.

Role of Test Situations

During the ADOPT, performances can be checked only in specific test situations that occur at locations designated in advance. This is intended to make the test as objective as possible. If examiners were free to check performances wherever they occurred, there would be no way of knowing what performances would actually be checked. No examiner can observe, evaluate, and make note of everything that an applicant does. Some examiners will notice one performance, while others will notice another. Some examiners will tend to notice errors, while others will tend to notice correct responses. Under such circumstances, the scores that applicants receive will depend as much upon who gives the test as on how well they perform.

Requiring that applicant performance be checked only in specific situations at designated locations assures that the performance will be noticed and assessed when it occurs. The test will be the same regardless of who administers it.

Importance of Reviewing Test Situations

In order for a performance to be checked at a particular location, the situation that will cause the performance to occur must be present at that location. If, for example, Gap Selection (GS) is to be checked at a particular location, there must be vehicles present to create a Gap Selection task. How good the test is will, therefore, depend in great measure upon whether locations have been selected at which the correct test situations exist. That is why it is so important to review the test situations thoroughly in advance of route selection.

2. SELECT TEST SITUATIONS

Those who will be responsible for selecting the test locations must be familiar with the area in which the route will be located.

Identify Possible Locations

Possible locations for checks can be worked out using a large-scale map if one is available. The local highway department may be able to provide a map of the area that shows factors that will be important in route selection (e.g., number of lanes, location of traffic controls, traffic volume).

Off-Street Checks

Handling (H) and Rapid Stop (RS) may be assessed on-street or off-street. Departments that elect to assess these performances off the street should identify suitable areas near the licensing station and verify that they satisfy all requirements for the checks.

Collect Required Information

Persons in charge of route selection should visit candidate locations to collect information that will aid in making final decisions on the test route and the locations of checks. Information must be obtained and recorded on:

- o Traffic (type and volume)*
- o Signs, signals and markings (type and location)
- o Road configuration (hills, curves)
- o Lanes (number, type if restricted, widths)
- o Roadside environment (e.g., parked vehicles, pedestrian traffic)
- o Sight limitations (type, location)
- o Surface conditions
- o Other relevant information (e.g., road construction, other obstructions)

* Only one performance, Gap Selection (GS), absolutely requires the presence of traffic, but traffic that is too heavy can impede or prevent performance in all checks. Reference to traffic volume is made where relevant in the descriptions of test situations for individual performance checks that appears at the end of this Manual.

Candidate locations should be visited at different times during the day since factors such as traffic, roadside activity, and available travel lanes may change throughout the day.

Number of Individual Performance Checks

Most of the ADOPT performances must be checked more than once in order to ensure reliable measurement of an applicant's abilities. The number of performance checks required depends upon whether the performance is traffic-dependent, memory-dependent, or skill-dependent.

Traffic-dependent Performance

Gap Selection (GS) is the only traffic-dependent performance assessed by the ADOPT. Since traffic is a dynamic factor, the traffic conditions needed for assessment will not always be present each time a GS check is called for. Therefore, a Gap Selection check should be called for on the test route whenever possible--at least three times. The more times a GS check is called for, the more chances the correct conditions will be present at least once.

Memory-dependent Performances

Memory-dependent performances are those that almost every applicant can perform but may forget to perform on some occasions. Since applicants can remember on one occasion and forget on another, more than one check is required for reliable measurement. At least three checks of these performances should be programmed on the test route. Memory-dependent performances are:

- Maintaining Speed: Straight (MS)
- Maintaining Speed: Curve (MC)
- Maintaining Speed: Turn (MT)
- Observing: Behind (OB)
- Observing: Rear Quarter (OR)
- Observing: Side (OS)
- Communicating: Lane Change (CL)
- Restricted Travel (RT)

Skill-dependent Performances

Skill-dependent performances, because they are constantly used, tend to be fairly stable. These performances, therefore, can be reliably measured with fewer checks than are required by performances in other categories. The test route should include at least two checks of the skill-dependent performances. They are:

Brake Application (BA)
 Lanekeeping: Straight (LS)
 Lanekeeping: Curve (LC)
 Lanekeeping: Turn (LT)
 Selecting Speed: Curve (SC)
 Selecting Speed: Turn (ST)

Performances That Require Only One Check

Handling (H) and Rapid Stop (RS) require only one check on the test route. If Rapid Stop is to be assessed on-street, two possible locations should be selected. The second is used in the event that a check of Rapid Stop cannot be safely made at the first location.

Summary

The recommended numbers of checks to be included at a minimum on an ADOPT route are listed below:

<u>Number of Checks</u>	<u>Performances</u>	<u>Total</u>
Three or more	GS, MS, MC, MT, OB, OR, OS, CL, RT	27
Two or more	BA, LS, LC, LT, SC, ST	12
One only	H (HT, HD, HS, HO, HP), RS	<u>6</u>
		45

Total Checks

The recommended minimum total shown above is 45 checks. The maximum must be determined during route selection. As a rule of thumb, about 50 checks can be programmed on a 10-minute route. Ten minutes is the recommended driving time for an ADOPT route (an experienced driver may drive a given route somewhat faster than a typical applicant).

Combining Performance Checks

More than one performance can be assessed in a given test situation provided that all requirements for each of the checks are met. Combining checks increases the number of checks that can be made on a given route. The maximum number of performance checks that can be made accurately at any one test location will vary with the complexity of the scoring and is best determined through trial administrations. Here are some guidelines for combining checks to make the best use of time without creating difficulties for the examiner:

- o Two to three checks at one location is optimum.
- o Three or four checks at one location is acceptable if the checks are highly compatible and if the location is well separated from the preceding and following locations so that examiners will have plenty of time to observe and score.
- o No more than four checks should be combined under any circumstances.

It's important to recognize that, with experience gained day after day, examiners will become quite proficient at administering the test. Therefore, it is possible to include more checks at a location and to place locations closer together than might seem possible when the route is being planned.

Possible Combinations

The chart below shows which performance checks may be combined where all requirements are met.

THESE PERFORMANCES	MAY BE COMBINED WITH THESE PERFORMANCES IN A SINGLE LOCATION												
	BA	LS	LC	LT	MS	MC	MT	SC	ST	OB	OR	CL	RT
H	NONE												
BA													RT
RS	NONE												
LS					MS								
LC						MC		SC					
LT							MT		ST	OB			
GS	NONE												
MS		LS											
MC			LC					SC					
MT				LT					ST				
SC			LC			MC							
ST				LT			MT						
OB				LT			MT		ST				
OR												CL	RT
OS	NONE												
CL											OR		RT
RT	BA										OR	CL	

Required Combinations

Certain checks involving lane changes, lanekeeping, and selecting speed require combinations of checks.

Lane Changes

The lane change checks, Communicating: Lane Change (CL) and Observing: Rear Quarter (OR), obviously require that a lane change occur. A lane change situation is created by having applicants enter a multilane highway in one direction and leave in the other, e.g., a right turn followed by a left turn. However, a lane change won't be required unless the applicant enters the correct lane upon completing the first turn. To encourage correct and penalize incorrect lane selection, the lane changing maneuvers (CL and OR) must be preceded by the check Restricted Travel (RT) to assess compliance with rules for turning on all multilane highways.

Lanekeeping

The three lanekeeping checks--Straight (LS), Curve (LC), and Turn (LT)--all require that the applicant be driving within at least 5 mph of the posted limit (or a "normal" speed where there is no posted limit) in order to be moving fast enough to create a true lanekeeping task. Therefore, each Lanekeeping check needs to be combined with the corresponding Maintaining Speed check--Straight (MS), Curve (MC), or Turn (MT). This way, an applicant who can stay within lane only by driving at an inordinately low speed will still be penalized.

Selecting Speed

The two Selecting Speed checks--Curve (SC) and Turn (ST)--require the applicant to judge what is a safe speed for negotiating a curve or turn. Applicants who enter curves or turns at inordinately low speeds are evidencing the same lack of perceptual judgment as applicants who enter too fast. To keep them from concealing their lack of judgment by traveling very slowly, a Maintaining Speed check should be made at each curve and turn where Selecting Speed is checked.

Summary

The required combinations are summarized below:

Required Combinations

RT/CL	LT/MT
RT/OR	SC/MC
LS/MS	ST/MT
LC/MC	

Checks That Cannot Be Used in Combinations

Rapid Stop (RS), Handling (H), and Gap Selection (GS) must never be combined with other performance checks. The Gap Selection check requires the examiner's undivided attention. The requirements for administering and scoring Rapid Stop and Handling checks preclude their combination with other checks.

Guidelines for Identifying Possible Locations

The following guidelines may help during identification of possible test locations.

1. Avoid Traffic Lights--As explained in "Individual Performance Checks," traffic lights must not be present at test locations. Traffic signals interfere with required performance since there is no way of knowing what the light cycle will be when an applicant reaches the test location.
2. Identify Hard-to-Find Locations First--Some checks may call for test situations that are hard to find in the area around a given licensing station (e.g., curves, open intersections). In such cases, the hard-to-find locations should be identified first. Then those that are easier to find can be identified in proximity.
3. Choose Flexible Test Locations--The best locations are those that meet the requirements for several different performance checks. During final selection of the route, these flexible locations will provide options that will make it easier to include all required performance checks on the route.
4. Avoid Overselection--Care should be taken not to overselect a particular kind of location because it is easy to find. Too many repetitions of checks limit the opportunity to include required repetitions of other checks.

Decide on Final Locations

Using the information collected, decisions on the locations of performance checks can be made. Every effort should be made to identify enough test locations to permit the minimum recommended number of performance checks to be made. If necessary, the area should be revisited to find more locations.

3. DESIGNATE THE ROUTE

Once the locations have been identified, a route should be laid out incorporating as many test locations as possible and including all required performance checks. This means connecting together the various locations. While there are obviously many ways by which to connect them, the route that will do it in the shortest distance will provide the most time-efficient test. The recommended driving time for an ADOPT route is 10 minutes.

Decide When Handling (H) Will Be Checked

As indicated in the section on "Individual Performance Checks," Handling (H) may be assessed either off- or on-street. Departments should consider placing the Handling checks at the beginning of the ADOPT. This would permit the tests of applicants who demonstrate extremely poor handling skills to be terminated early. It may also help to identify for examiners those applicants who, while they are not totally incapable of handling the vehicle, may have some difficulty with other portions of the test and, therefore, will require increased vigilance on the part of the examiners.

Placing the Handling checks at the beginning of the test route is recommended but not absolutely necessary. Where the checks are to be made on-street, it may not be possible to place them at the beginning. It is more important that an on-street location meet all the requirements for making the checks than it is that it be placed at the front of the test route.

Establish Reference Points

Once appropriate locations have been designed for Rapid Stop (RS) and Gap Selection (GS) checks, Reference Points must be established for those two checks:

Rapid Stop (RS)--Two Reference Points are needed. Instruction to "stop" is given at the first Reference Point, and the second marks the boundary of the area within which applicants must stop.

Gap Selection (GS)--Three Reference Points are needed for at least one GS check. These are used only during training and practice. The first and third Reference Points are used to determine when an approaching vehicle is close enough to create a valid Gap Selection task. The middle Reference Point is used to decide whether a gap is safe (acceptable) or unsafe (not acceptable).

The use of Reference points is described in the section on "Individual Performance Checks."

Separate Zones and Points

In the ADOPT, some performances are checked in zones, portions of the route such as the area of an intersection, a segment between two intersections, or the area of a curve. Other performances are checked at specific points on the route, such as an entrance to an intersection, a stop sign, or some other road sign. Points should not be located within zones, since this would interfere with performance assessment and could be confusing for the examiner. To keep the two types of checks separated, refer to the locations required for each performance check, as shown below.

Assessed at Points

Handling (H)
Brake Application (BA)
Gap Selection (GS)
Observing: Side (OS)
Restricted Travel (RT)*

Assessed in Zones

Rapid Stop (RS)
Lanekeeping: Straight (LS)
Lanekeeping: Curve (LC)
Lanekeeping: Turn (LT)
Maintaining Speed: Straight (MS)
Maintaining Speed: Curve (MC)
Maintaining Speed: Turn (MT)
Selecting Speed: Curve (SC)
Selecting Speed: Turn (ST)
Observing: Behind (OB)
Observing: Rear Quarter (OR)
Communicating: Lane Change (CL)
Restricted Travel (RT)*

Guidelines for Designating the Route

Obviously, a lot of trial and error will have to take place before an acceptable route is created. The following guidelines may help in designating a route:

Limit Distance--All locations should be relatively close to one another. Avoid long stretches of driving during which no performances are assessed. Extending a route 2 or 3 minutes just to include a single required performance check is not an efficient use of time. Only if several underrepresented checks can be included should such an extension be considered.

Provide Space Between Locations--A short distance must be provided between two test locations on the test route so that examiners will have time to record the score for each check. The distance required depends to a degree on the number of checks made at the first location. Another reason for separation is to ensure that examiners will not become confused when similar or identical test situations are placed one after the other on the route. If necessary, space between locations can be adjusted during trial administrations.

Keep Zone Short--Since only one instance of a given performance can be assessed in a single zone, zones should be kept relatively short, i.e., one or two blocks in the city and 1/4 to 1/2 mile on the highway. Long stretches of road can be divided into several shorter zones. Keeping zones short and placing them in a series increases the number of performance checks that can be made.

* RT may be assessed either at points or in zones.

Conduct Trial Administrations

Prior to training examiners to administer the ADOPT, supervisors and those involved in route selection should conduct trial administrations to make sure the route is adequate, that all required checks are included and can be made according to plan, and that locations have been properly spaced.

During trial administrations, examiners who were not involved in route planning should take the role of applicants. Because they will not be familiar with the route, they will have to respond to the instructions they are given. This will help in determining the adequacy of those instructions. After several dry runs using examiners, trial administrations should involve actual applicants who will take the ADOPT in place of the existing test.

Examiners conducting the trials should look for the following:

Administration Time--The time it takes to drive the entire route. If the total time is substantially more than 10 minutes, route adjustments will be needed.

Travel Restrictions--Restrictions affecting any portion of the route that might have been overlooked earlier, e.g., "No Left Turn 4-6 p.m." Such restrictions will require changes in the route.

Interference--Locations where road or traffic conditions invariably interfere with required performance checks. If interference is encountered, the checks should be relocated.

Examiner Overload--Sections of the route that include more checks than it is feasible for the examiner to make. In such cases, checks should be dropped or relocated as necessary.

Examiner Underload--Sections of the route on which the examiner's time is not adequately utilized. In such cases, look to see whether more checks could appropriately be added (particularly those that must be included three or more times on the route).

Conflicting Checks--Locations on the route where checks conflict, i.e., the examiner is required to look in two places at once, making it impossible to check performances accurately. If checks conflict, drop or relocate checks to correct the problem.

Confusing Instructions--Instructions that seem to confuse most applicants. If applicants are confused, instructions may have to be given sooner, more frequently, or more clearly.

Examiner Scoring Errors--Locations at which scoring errors are persistently made. Test situations or individual checks may have to be relocated to correct the problem. If the errors involve combinations of checks, the situation requirements should be reviewed to make certain the locations are appropriate for all checks in the combination.

Performances Do Not Occur (N/A)--Locations where applicants must be scored N/A most of the time and performances rarely occur. The situation requirements should be reviewed to see whether the location is truly appropriate.

Many Incorrect Responses--Performance checks in which the majority of applicants who otherwise do well perform incorrectly. The location should be examined to see whether prevailing conditions are encouraging an incorrect response.

Conduct additional trials following any adjustments in the route. Once the route is firm, printed materials can be prepared and examiner training can begin.

4. PREPARE PRINTED MATERIALS

When the route has been laid out, ADOPT printed materials must be prepared. These are the score sheet to be used by examiners and printed information for applicants.

Score Sheet

As explained earlier in this Manual, the ADOPT score sheet has three purposes. In addition to providing space for recording the applicant's scores, it also contains route information for the examiner and instructions that must be given to the applicant. Because score sheets are route-specific, a score sheet must be prepared for each ADOPT route. A portion of a sample score sheet is provided in Appendix B.

Route Information for Examiners

Route information for examiners includes information that indicates:

- o when examiners must give instructions to applicants.
- o the locations of performance checks.

Detailed route directions are not required because examiners will quickly memorize the route during practice and the performance checks themselves provide adequate route guidance for anyone who is generally familiar with the area of the route.

Guidelines for Providing Information for Examiners

The following guidelines should be followed in preparing route information for examiners:

- o Locations of performance checks and cues to give instructions to applicants should be stated succinctly, using recognizable landmarks and street names, e.g., "Oak at Elm."
- o Where a zone is involved, both the beginning and the end of the zone must be identified, e.g., "Main Street from Oak to Pine."
- o Required information should be listed on the score sheet in the order in which it will be used. For locations where two or more checks are to be made, the most complicated checks should be listed first.
- o Locations of the Signal and Distance Reference Points for the Rapid Stop check must be listed.

Instructions to Applicants

Examiners must give instructions to applicants to guide them around the test route and to explain the Handling and Rapid Stop checks. These must be listed or referenced on the score sheet to ensure that examiners will (1) use the same words with each applicant and (2) give instructions at the proper time.

Route Instructions

Here are some guidelines to be used in preparing route instructions that will be given to applicants.

- o Route instructions should be provided on the score sheet in the order they are to be given.
- o The exact words that are to be used must appear on the score sheet.
- o Instructions should be brief and nontechnical, using general terms that can be understood by all applicants.
- o Instructions to applicants should use easily recognized landmarks rather than street names. Use of street names favors drivers who are familiar with the area, penalizes nonreaders, and poses an additional visual task.
- o The location at which a maneuver is to be made should be stated first, followed by the maneuver--i.e., "At the next street, turn left," instead of "Turn left at the next street." If the maneuver ("Turn left") is given first, some applicants may respond prematurely.
- o Instructions should relate only to the route. Examiners must be cautioned not to tell applicants which lane to use or to give instructions relating to speed, except during the Rapid Stop check.

Instructions for Handling and Rapid Stop

Since instructions to applicants regarding the Handling and Rapid Stop checks are lengthier than instructions regarding the route, these should merely be referenced on the score sheet to indicate when the instructions must be given. Recommended wording for these instructions is presented below.

Handling

"Please park in that space. While you are parking, I will be timing your performance. I will begin timing when you start to back up. I will stop timing when you bring your vehicle to a stop. Please begin as soon as you are ready."

Rapid Stop

"Please bring your speed to ___ mph and hold it there. In a moment I will tell you to stop. When I do, you are to bring the car to a stop as quickly as you can without locking any of the four wheels."

The required speed for Rapid Stop should be noted on the score sheet. Examiners must give instructions to applicants well in advance of the first or Signal Reference Point. The signal to "stop" is given as the vehicle reaches the Signal Reference Point.

Space for Recording the Scores

Performance checks should be listed in the order they are to be made, with space for checking either YES, NO, or N/A. (See Appendix B.) The two-letter codes should be used. Placing the space for recording the score opposite the corresponding route information and applicant instructions is probably the most logical approach. This helps the examiner to remember to make the performance checks and record the scores.

Space should be provided at the bottom or on the back of the score sheet for calculating and recording total score. Departments may wish to provide space for other information they customarily record (e.g., permit number, type of vehicle, name of applicant, name of examiner).

Printed Information for Applicants

The basic purpose of a road test is to ensure that drivers are adequately prepared to drive safely before they are given a license to do so on their own. A road test is not intended to screen out drivers--almost everyone who wants a license eventually gets one. Applicants must be fully informed about the test if they are to prepare themselves adequately before taking it.

Since the ADOPT is designed to assess specific performances, applicants will need to know in advance of the test which performances will be checked and what criteria will be used to determine whether their performances were good enough. They should not be told where each performance will be checked because they are expected to prepare themselves to be safer drivers, not just to pass the test. In addition to information about the kinds of behavior they will be expected to exhibit, applicants should be provided with information on special performance checks like Handling and Rapid Stop.

Departments may elect to provide applicants with a handout containing this basic information at the time they obtain a learner's permit. Alternatively, the information can be provided in the State Driver Manual. A sample handout for applicants is provided in Appendix C. States may include other statements--for example, regarding Departmental policy related to the test--at their discretion.

5. TRAIN EXAMINERS

All examiners who will administer the ADOPT must be provided with training, including adequate time for practice. A suggested schedule for training is as follows:

Orientation Session	1/2 day
Self-study	1/2 day
Practice	1 day

Instructors

Instructors must be thoroughly familiar with the ADOPT and the methods for administering and scoring the test. One instructor can deliver the orientation session. Practice requires a ratio of one instructor to two examiners, working as a pair.

Orientation Session

The orientation session will serve to explain to examiners the characteristics of the ADOPT and how it is administered and scored. During the orientation session, examiners should be provided with the Examiner's Manual, the score sheet, and any other relevant printed material (e.g., printed information for applicants, instructions for Handling and Rapid Stop). These materials need to be provided so that examiners can refer to them during the session.

In addition to providing basic information, the instructor should discuss relevant department policy on matters such as:

- o passing score.
- o conditions under which tests will be terminated.
- o methods for dealing with problems that arise during test administration.

Examiners should be encouraged to ask questions, and time should be set aside at the end of the session for questions and answers.

Self-Study

Following the orientation session, examiners should be given time to read and study the Examiner's Manual and review the score sheet so that they can learn the procedures for scoring the ADOPT performance checks. About half a day should be sufficient for self-study.

Practice

Following self-study, examiners must learn the route. Then they must practice administering the ADOPT, working in pairs. Practice requires an adequate supply of score sheets and an accelerometer for examiner use.

Accelerometer

The accelerometer is used to help examiners learn to judge acceleration force accurately. This judgment is required for scoring three performance checks: Brake Application (BA), Selecting Speed: Curve (SC), and Selecting Speed: Turn (ST). The training involves having the instructor perform each maneuver repeatedly, varying performance to create a wide range of accelerations. As the instructor drives, one examiner should monitor the accelerometer, while the other attempts to judge whether the acceleration was normal or excessive. Examiners should take turns monitoring the accelerometer so that each has the same opportunity for practice in judging acceleration on the three performance checks. Practice should continue until examiner judgment corresponds with the accelerometer reading on at least 90% of accelerations.

The accelerometer is used only for practice. Thereafter, during the testing of license applicants, examiners rely upon their own judgment of acceleration force. The specifications for an appropriate accelerometer are provided in Appendix A.

Learning the Route

To help examiners learn the ADOPT route, the instructor should drive them over the route until they have memorized it. This will probably take one to two hours, depending on the number of examiners. Along the route, the locations of the various performance checks should be pointed out and discussed. Examiners should have score sheets for reference while they are learning the route.

This portion of the training can be accelerated by driving groups of examiners over the route--for example, in a van or station wagon if one is available.

Practice in Administering the Test

During practice administrations, an instructor should work with one pair of examiners at a time. The instructor drives the test route, while the two examiners score driving performance. The examiners take turns giving instructions to the "applicant," but both score the performance so that results can be compared. While driving, the instructor will make deliberate errors--nothing extreme or dangerous, but errors that a typical applicant could be expected to make.

It is not recommended that examiners drive the test route, because this reduces the time for practice in administering the test.

During the practice sessions, the instructor should observe examiner performance carefully and correct it where necessary:

- o Are they giving instructions uniformly and at the proper time?
- o Do they understand the criteria for YES, NO, and N/A scores?
- o Are they scoring accurately?
- o Are they filling out the score sheets completely?

Practice should continue until at least 90 percent interexaminer agreement is achieved--that is, until each pair of examiners trained together scores performance the same way 90 percent of the time.

Initial License Testing

Upon completion of the practice sessions, examiners should administer the ADOPT to several license applicants, while the instructor monitors the test administration. The instructor should be introduced as a "supervisor" who periodically monitors test administrations. Applicants should be asked whether they mind if the supervisor rides along during the test. If they object, the instructor should not accompany the examiner.

Periodic Monitoring of Examiner Performance

Examiner performance should be monitored periodically to ensure that the ADOPT is being administered properly and consistently so that quality is maintained. Procedures for monitoring are identical to those explained in the preceding paragraph.

Departments may also wish to recheck examiner judgment of acceleration forces in the BA, SC, and ST checks periodically by comparing their judgments with those registered on an accelerometer.

INDIVIDUAL PERFORMANCE CHECKS

H--HANDLING

Handling is measured through a parallel parking maneuver. The purpose of the check is not to see how well applicant performs in parallel parking. Rather, it is a check of the applicant's ability to handle the vehicle. It is one of the best ways of testing skills in a road test.

Performance

Applicant must maneuver the vehicle along a prescribed path, both forward and backward, in tight quarters. The maneuver used to assess this performance is parallel parking, but applicants are not assessed specifically on their ability to parallel park. Instead, five individual aspects of applicant performance are assessed.* As explained below, applicants must always be scored YES or NO for H checks unless the test situation cannot occur because of traffic, weather, or other conditions.

Test Situation

This performance may be assessed either off or on the street.

On the Street

1. Performance may be assessed using a standard parallel parking space along the curb of the roadway. Use a space of a length equal to the average length of parking spaces in the community.
2. Length boundaries must be visible to both examiner and applicant. Boundaries may be designated by two cars or by painted lines; or cones, flags, or other markers may be placed at each end of the space.
3. Traffic along the road should be very light so that it does not interfere with the applicant's performance by causing him to stop during the maneuver. Traffic that is too heavy may even prevent the applicant from initiating the performance.

Off the Street

1. Performance may be assessed using a marked off-street parallel parking space or along a "curb" created by flags, cones, painted lines, or other appropriate markings.

* Performance during exit from the parking space is not assessed. Skill is adequately assessed during entry. Also, skills needed to exit the space are assessed by other performance checks that comprise the ADOPT.

2. Length boundaries must be visible to both examiner and applicant. Boundaries may be designated by two cars or by painted lines; or cones, flags, or other markers may be placed at each end of the space.
3. Area used should be one where other traffic will not interfere with the applicant's performance--e.g., little-used corner of a parking lot.

Scoring Criteria

HT--Handling: Time

Applicant must complete the maneuver in 1 minute or less.

YES Applicant completes the maneuver in 1 minute or less.* Timing begins with backward movement and concludes when vehicle stops in final position.

NO Either of the following must be scored NO:

1. Applicant takes more than 1 minute to complete the maneuver.
2. Applicant gives up or will not even attempt the maneuver.

N/A Traffic, weather, or other conditions prevent the Handling checks from being made.

HD--Handling: Direction Changes

Applicant must make four or fewer direction changes during the maneuver.

YES Applicant completes maneuver with four (4) or fewer direction changes, backward and forward. Initial backward motion is counted as first direction change.

NO Either of the following must be scored NO:

1. Applicant makes more than four (4) direction changes during maneuver.
2. Applicant gives up or will not even attempt the maneuver.

N/A Traffic, weather, or other conditions prevent Handling checks from being made.

* During on-street assessment, if other traffic causes applicant to stop during the maneuver, applicant should be instructed to start over again. For accurate timing, applicant must complete the maneuver without interruption.

HS--Handling: Striking of Boundaries

Applicant must avoid striking boundaries during the maneuver.

YES Applicant's vehicle does not strike or touch established boundaries (cones, flag, curb) during maneuver.

NO Either of the following must be scored NO:

1. Applicant's vehicle strikes or touches established boundaries during maneuver.
2. Applicant gives up or will not even attempt the maneuver.

N/A Traffic, weather, or other conditions prevent Handling checks from being made.

HO--Handling: Observing

Applicant must observe in the direction of travel during the maneuver.

YES Applicant looks in direction of travel during maneuver except to check clearance of front fender.

NO Either of the following must be scored NO:

1. Applicant does not look in direction of travel during maneuver.
2. Applicant gives up or will not even attempt maneuver.

N/A Traffic, weather, or other conditions prevent Handling checks from being made.

HP--Handling: Position

Vehicle in final position must be 12 inches or less from the curb.

YES Vehicle in parked position is not more than 12 inches (or State legal distance standard) from curb or marking denoting curb. Measurement is taken from part of vehicle farthest from curb.

NO Either of the following must be scored NO:

1. Vehicle in parked position is more than 12 inches (or State legal distance standard) from curb or marking denoting curb.
2. Applicant gives up or will not even attempt maneuver.

N/A Traffic, weather or other conditions prevent Handling checks from being made.

BA--BRAKE APPLICATION

Brake Application tests the applicant's ability to apply the brakes smoothly. While smooth brake application is not in itself critical to safety, it provides a good indication of overall vehicle handling skill.

Performance

Applicant must regulate brake pressure in order to stop smoothly at an intersection.

During this performance check, when the applicant brakes, negative acceleration should be less than .3 g. During examiner training and practice, an accelerometer will be used to help examiners learn to judge the force of acceleration accurately.

Test Situation

1. This performance may be assessed at an intersection with either a stop sign or a flashing red light facing the applicant so that the applicant must stop. An intersection with regular traffic signals cannot be used since there is no way of assuring that the applicant will have to stop.
2. Traffic on the applicant's roadway should be light so that performance will not be affected by traffic ahead. Heavy, stop-and-go traffic is not appropriate.
3. Traffic on the cross street should be moderate to heavy to emphasize the importance of stopping and to make clear where the stop should occur.
4. This check should not be placed at an intersection where the applicant will stop on an uphill grade. An uphill grade will reduce the need for brake application. Downhill grades are appropriate.
5. An intersection with a marked crosswalk or stop line is preferable to an intersection without such markings, but is not absolutely necessary.

Scoring Criteria

YES Applicant stops vehicle without excessive "lurch" at point of stop.

NO Either of the following must be scored NO:

1. Vehicle does not come to a complete stop.
2. Vehicle lurches or pitches forward excessively at point of stop.

N/A Either of the following must be scored N/A:

1. Traffic, weather, or other conditions cause applicant to stop abruptly.
2. Stop-and-go traffic at the location of the check causes applicant to approach point of stop too slowly to permit a valid assessment.

RS--RAPID STOP

Rapid Stop tests the applicant's ability to bring the vehicle to a stop quickly in an emergency. This ability is important in responding to sudden emergencies and also provides an indication of overall vehicle handling skills.

Performance

Applicant must bring the vehicle to a stop as quickly as possible without locking the wheels or skidding.

Reference Points are designated on the score sheet and are used to mark the area within which the applicant must stop.

Test Situation

This performance may be assessed either off the street or on the street.

On the Street

1. Performance may be assessed on a stretch of straight, flat roadway (over 500 feet in length) with a surface that provides good traction. Two locations for the check should be designated; the second is used when performance cannot be checked at the first location for some reason (e.g., traffic).
2. For each RS location, two landmarks or "Reference Points" must be chosen, one at each end of the stretch of road. The first Reference Point cues the examiner to give the "stop" signal to the applicant. Instructions to applicants that explain the required performance must be given well before they reach the first Reference Point.

The second Reference Point helps the examiner to assess the applicant's performance. During route selection, the second Reference Point must be chosen by having an experienced driver perform a Rapid Stop several times at the test location. The mid-point of all these trials should be determined and the landmarks selected approximately six feet beyond this mid-point. This landmark becomes the second reference point. During the test, the applicant must stop inside the second Reference Point.

3. There must be little or no traffic in the area. An area where following traffic is likely to be encountered is not suitable.
4. The speed limit on the road should be 25-30 mph.

Off the Street

1. Performance may be assessed in an off-street area large enough for applicants to achieve a speed of 25-30 mph and stop safely. This should be determined during route selection as explained above in procedures for on-street assessment. Only one location must be designated if assessment will take place off-street.
2. Reference Points must be designated and used as explained in procedures for on-street assessment.

Scoring Criteria

YES Applicant stops vehicle between Reference Points without skidding.

NO Any of the following must be scored NO:

1. Applicant does not bring vehicle to a complete stop.
2. Applicant does not stop between Reference Points.
3. Applicant's vehicle skids at any point during stop. Skid would be indicated by either a "chirp" of the tires or discernible skidding motion.

N/A Any of the following must be scored N/A:

1. Examiner gives instructions late. (Note: Even if instructions are late, score YES if applicant performs correctly and meets criteria for YES score.)
2. Applicant does not attempt to stop because he did not understand instructions. Failure to understand is indicated only by failure to attempt to stop.
3. Traffic, weather, or other conditions prevent check from being made (for example, applicant is prevented from bringing vehicle up to speed).
4. Examiner is unsure whether vehicle skidded.
5. Examiner could not make the performance check.

L--LANEKEEPING

Lanekeeping tests the applicant's ability to coordinate speed and direction so as to keep the vehicle within a lane. Being able to stay within lane is of obvious importance for its own sake and provides a good measure of overall vehicle handling skills.

Performance

Applicant must operate within the bounds of proper travel lanes.

Lanekeeping is assessed in three different situations: on a straight portion of the road, on a curve, and in a turn.

LS--Lanekeeping: Straight

Test Situation

1. This performance may be assessed on a stretch of straight road one or two blocks long. Longer stretches of road may be subdivided into several zones so that multiple checks of LS are possible. Hills (upgrades and downgrades) are acceptable.
2. Lanes should be 8-10 feet wide, clearly marked on both sides. Curbs or shoulders should be easily distinguished from the roadway.
3. Speed limit should be at least 35 mph to create a lanekeeping task.
4. Traffic should be fairly light so that it does not influence applicant's speed, position in lane, or lane selection. Applicant must remain in one lane throughout the test zone.
5. The roadside area should be free of parked vehicles and pedestrian traffic that could impede the applicant's performance.

Scoring Criteria

YES Applicant's vehicle remains within bounds of the proper travel lane throughout the check zone.

NO Applicant's vehicle touches or crosses any lane boundaries within the check zone.

N/A Any of the following must be scored N/A:

1. Traffic or other conditions cause applicant to perform incorrectly (for example, to change lanes).
2. Traffic prevents incorrect performance (for example, slow traffic ahead makes it unlikely applicant will fail to stay within lane).
3. Examiner is unsure whether applicant's vehicle touches or crosses lane boundaries.

LC--Lanekeeping: Curve

Test Situation

1. This performance may be assessed along a road curve of less than 90° where vehicle speed is not affected by traffic controls.
2. The roadway should be relatively flat with a good surface so only the curve will affect vehicle speed.
3. Lanes should be clearly marked on both sides.
4. Speed limit should be 25 mph or more.
5. Traffic should be light so that it does not influence the applicant's speed, position in lane, or lane selection. Applicant must remain in one lane throughout the test zone.
6. The roadside area should be free of parked vehicles and pedestrian traffic that could impede the applicant's performance.

Scoring Criteria

- YES Applicant's vehicle remains within the bounds of the proper travel lane throughout the entire curve zone.
- NO Applicant's vehicle touches or crosses the boundaries of the proper travel lane within the check zone.
- N/A Any of the following must be scored N/A:
1. Traffic or other conditions prevent applicant from performing correctly (for example, traffic causes applicant to change lanes, or applicant must swerve to avoid an obstruction in the roadway).
 2. Traffic prevents incorrect performance (for example, slow traffic ahead makes it unlikely applicant will fail to stay within lane).
 3. Examiner is unsure whether applicant's vehicle touches or crosses lane boundaries.

LT--Lanekeeping: Turn

Test Situation

1. This performance may be assessed at an intersection that requires a 90° left or right turn.
2. Lane boundaries should be clearly marked on both sides.
3. The intersection should not be signalized since the applicant must be able to initiate the turn without first stopping or slowing excessively. Open or two-way stop intersections are appropriate (stop signs must be on perpendicular road in the latter case).
4. Area of the intersection should be relatively flat and provide good sight distance.
5. Traffic should be relatively light so that it is not likely the applicant will have to stop before turning.

Scoring Criteria

YES Right Turn Applicant operates within the bounds of proper travel lanes while turning.

Left Turn All of the following are required for a YES score:

1. Applicant proceeds to midpoint of intersection before turning, and
2. Applicant enters nearest travel lane on new roadway, and
3. Applicant operates within the bounds of proper travel lanes while turning.

NO Right Turn Applicant's vehicle touches or crosses lane boundaries in the turn.

Left Turn Any of the following must be scored NO:

1. Applicant turns before or after midpoint of intersection.
2. Applicant enters wrong lane on new roadway.
3. Applicant's vehicle touches or crosses lane boundaries in the turn.

N/A Either of the following must be scored N/A:

1. Traffic or other conditions cause applicant to perform incorrectly.

2. Examiner is unsure whether applicant's vehicle touches or crosses lane boundaries.

GS--GAP SELECTION

Gap Selection tests the applicant's ability to judge what is a safe gap for crossing or entering a stream of traffic. Few applicants will accept an unsafe gap during a road test. Most of the errors will involve failure to accept a safe gap. While passing up a safe gap is not inherently dangerous, it indicates an inability to judge gaps that may, when an examiner is not present, result in accepting an unsafe gap.

Performance

Applicant must accept a proper gap in traffic or reject an improper gap in traffic in a situation where the applicant is attempting to cross traffic, turn left across traffic, or enter traffic to the right. During training examiners will learn how to judge whether a valid Gap Selection task is presented and whether the applicant makes the proper decision.

Test Situation

1. This performance may be assessed at an intersection or merge point without signals where applicant will be the burdened operator and must stop or yield the right of way.
2. Signs may be present to establish the right of way.
3. The intersection or merge area should be free of visual obstructions to provide clear sight distance in all directions.
4. The applicant may be required to perform any one of the following maneuvers:
 - (a) Cross traffic coming from the sides in order to traverse or make a left turn.
 - (b) Turn left across oncoming traffic.
 - (c) Enter traffic coming from the left by making a right turn or merging to the right.

Since (c) is least likely to be accompanied by a Gap Selection task, (a) and (b) should be given preference during route selection.

5. For at least one Gap Selection check, landmarks or reference points must be selected for use during examiner training. Outer, Decision, and Inner Reference Points are required. These Reference Points must be located on the road occupied by cross or oncoming traffic as follows:

<u>Reference Point</u>	<u>Time from Intersection or Merge Point</u>
Outer	10 seconds
Decision	7 seconds
Inner	4 seconds

The time interval refers to the period of time it takes a vehicle traveling at normal speed to reach the intersection or merge point from the reference point.

For cross-traffic situations, Reference Points must be located to both the left and right of the intersection. Reference Points are plotted in terms of time intervals rather than distances in order to take account of the differing speeds at which other vehicles may approach on different roads.

Use of Reference Points

Reference points are used by examiners only during practice. They help to determine that a Gap Selection task exists and whether the applicant responds correctly. Following training and practice, examiners check and score applicants without the help of Reference Points.

For a valid Gap Selection task to exist, a vehicle must be between the Outer Reference Point and the Inner Reference Point. If the vehicle is between the Outer Reference Point and the Decision Reference Point, the applicant must accept the gap. If the vehicle is between the Decision Reference Point and the Inner Reference Point, the applicant must reject the gap.

6. Traffic in the area should be moderate. Light traffic reduces the chances that a Gap Selection task will be presented. Heavy traffic results in too many N/A scores. Only the first vehicle approaching is considered in scoring; in heavy traffic that vehicle will too often be between the Inner Reference Point and the applicant, and a valid gap selection task will not be presented. Heavy traffic may also distract the examiner's attention, making it difficult for him to observe the applicant accurately.

Scoring Criteria

YES Both of the following are required for a YES score:

1. A valid Gap Selection task exists, and
2. Applicant makes correct decision (accepts a safe gap or rejects an unsafe gap).

NO Both of the following are required for a NO score:

1. A valid Gap Selection task exists, and
2. Applicant makes incorrect decision (rejects a safe gap or accepts an unsafe gap).

N/A Any of the following must be scored N/A:

1. No valid Gap Selection task exists.
2. Vehicle presenting Gap Selection task is speeding or moving very slowly.
3. Vehicle presenting Gap Selection task increases or decreases speed, stops, or turns before reaching intersection.
4. First approaching vehicle is not in lane to be entered by applicant (right-merge or right-turn situation only).
5. Traffic or other conditions prevent applicant from performing correctly (for example, pedestrian or vehicles ahead block path of applicant vehicle).

M--MAINTAINING SPEED

Maintaining Speed tests the applicant's ability to keep the vehicle's speed up--to maintain a safe, normal speed. Failure to maintain an adequate speed is potentially unsafe and a hindrance to traffic. Moreover, on a road test, it allows applicants to hide their inability to handle the vehicle. This check must be used wherever Lanekeeping or Selecting Speed are to be checked.

Maintaining Speed is not intended to check an applicant's compliance with the speed limit.

Performance

Applicant must maintain an appropriate speed. Maintaining Speed is assessed in three different situations: on a straight portion of the road, on a curve, and in a turn.

MS--Maintaining Speed: Straight

Test Situation

1. This performance may be assessed on a straight stretch of road one or two blocks long. Upgrades are particularly appropriate for test zones since they require applicants to make an effort to maintain speed.
2. The speed limit must be adequately signed and must not change in the zone or in the near distance. Posted speed limit signs may be used to indicate the start and end of the test zones to examiners during administration of the test.

3. Traffic should be fairly light so that it does not influence the applicant's speed selection or position, thereby preventing the performance check.

Scoring Criteria

- YES Applicant maintains a speed that is no more than 5 mph under the posted speed limit.
- NO Applicant operates at a speed more than 5 mph below the posted limit.
- N/A Traffic, weather, or other conditions prevent applicant from maintaining speed.

MC--Maintaining Speed: Curve

Test Situation

1. This performance may be assessed along a road curve of less than 90° where vehicle speed is not affected by traffic controls.
2. The roadway should be relatively flat with a good surface so that only the curve affects vehicle speed.
3. The speed limit should be 25 mph or more.
4. A speed limit sign must be present at or near the check zone.
5. Traffic should be light enough that it does not influence the applicant's selection of speed or position. Applicant must remain in one lane throughout the test zone.
6. The roadside area should be free of parked vehicles and pedestrian or entering traffic that could impede the applicant's performance.

Scoring Criteria

- YES Applicant maintains a speed that is no more than 5 mph below the posted speed limit throughout the entire curve zone.
- NO Applicant operates at a speed more than 5 mph below the posted limit.
- N/A Traffic, weather, or other conditions prevent applicant from maintaining speed.

MT--Maintaining Speed: Turn

Test Situation

1. This performance may be assessed at an intersection that requires a 90° left or right turn.
2. Following route selection, the turn should be driven several times at normal speeds. The speed traveled on each occasion should be recorded and averaged. This average speed should be entered on the score sheet as "normal."
3. The applicant's progress through the intersection should not be controlled by a traffic signal or stop sign since the applicant must be able to initiate and negotiate the entire turn without first stopping.
4. The area of the intersection should be relatively flat and provide good sight distance.
5. Traffic in the area should be light so that it is not likely the applicant will have to stop or slow before or during the turn.
6. Applicants must maintain a speed within a safe range during this check. To determine the range, an experienced driver should make the turn several times during route selection. Minimum and maximum speeds must be designated to create the range.

Scoring Criteria

- YES Applicant does not drop more than 5 mph below the speed designated as "normal" on the score sheet at any point in the turn.
- NO Applicant drops more than 5 mph below the speed designated as "normal" on the score sheet at some point in the turn.
- N/A Traffic, weather, or other conditions prevent applicant from maintaining speed (for example, pedestrian in turning path causes applicant to stop.)

S--SELECTING SPEED

Selecting Speed checks the applicant's ability to judge the maximum safe speed at which a curve or turn can be safely negotiated. The inability to make this judgment is one of the more common shortcomings of novice drivers.

Performance

Applicant must select an appropriate speed for safe operation. Selecting Speed is assessed in two different situations: on a curve and in a turn.

During these checks, lateral acceleration must be less than .4 g in the curve. An accelerometer will be used in training to help examiners learn to judge lateral acceleration accurately.

SC--Selecting Speed: Curve

Test Situation

1. This performance may be assessed along a road curve of less than 90° where vehicle speed is not affected by traffic controls.
2. The roadway should be relatively flat with a good surface so that only the curve affects vehicle speed.
3. The speed limit should be 25 mph or more.
4. An advisory speed or other speed warning sign must not be present.
5. Traffic should be light enough that it does not influence the applicant's selection of speed or position. Applicant must remain in one lane throughout the test zone.
6. The roadside area should be free of parked vehicles and pedestrian or entering traffic that could impede the applicant's performance.
7. During route selection, curves considered for this performance check should be driven several times by an experienced driver to make certain that a speed adjustment task is present. If the curve can be safely negotiated without a speed adjustment, it is not suitable for this performance check. The apex or sharpest point of the curve should be identified for examiners since it figures in scoring of applicant performance.

Scoring Criteria

YES Both of the following are required for a YES score:

1. Applicant negotiates entire curve without causing excessive lean (or side force), and
2. Applicant does not apply brake at apex or sharpest point of curve. (Apex of curve will be specified during practice.)

NO Any of the following must be scored NO:

1. Examiner experiences excessive lean (or side force) on the curve.
2. Applicant applies brake at apex of curve.
3. Applicant takes curve too slowly and impedes traffic.

N/A Either of the following must be scored N/A:

1. Weather, surface, or traffic conditions dictate operating speed so that speed adjustment is unnecessary.
2. Pedestrians, traffic, or object in roadway causes applicant to perform incorrectly (for example, to apply brake at apex of curve).

ST--Selecting Speed: Turn

Test Situation

1. This performance may be assessed at an intersection that requires at 90° left or right turn.
2. An appropriate situation is one in which the applicant must turn off of a major (high-speed) road onto a road posted at a lower speed. These conditions help to assure that speed adjustment will be required.
3. The applicant's progress through the intersection should not be controlled by a traffic signal or stop sign since the applicant must be able to initiate and negotiate the entire turn without first stopping.
4. The area of the intersection should be relatively flat and provide good sight distance.
5. Traffic in the area should be light so that it is not likely the applicant will have to stop or slow before or during the turn.
6. The speed limit on the first road should be high enough (at least 25 mph) that turning will require a speed adjustment even if an applicant is traveling well below the speed limit. During route selection, an experienced driver should make the turns under consideration several times to make sure that a speed adjustment is necessary.

Scoring Criteria

YES Both of the following are required for a YES score:

1. Applicant completes turn without causing excessive lean (or side force), and
2. Applicant does not apply brake after the turn begins or at any time during the turn.

NO Any of the following must be scored NO:

1. Examiner experiences excessive lean (or side force) in the turn.
2. Applicant applies brake after turn begins or at any time during the turn.
3. Applicant takes the turn too slowly, impeding traffic, or actually stops.

N/A Either of the following must be scored N/A:

1. Weather, surface, or traffic conditions dictate operating speed so that speed adjustment is unnecessary.
2. Pedestrians, other traffic, or object in roadway causes applicant to perform incorrectly (for example, to apply brake during the turn).

O--OBSERVING

Observing assesses the applicant's use of proper visual search procedures. Failure to employ proper visual search is one of the leading causes of accidents. This check also provides an indirect measure of vehicle handling skills in that unskilled drivers often become so preoccupied with control of the vehicle that they neglect to observe properly.

Performance

Applicant must observe for the presence of other road users. Observing is assessed in three different situations: when a check behind is required, when a check of the rear quarter is required, and when checks to the sides are required.

OB--Observing: Behind

Test Situation

1. This performance may be assessed in any situation in which the applicant is required to slow or stop at a point where following drivers would not expect it.

2. An appropriate situation is one in which the applicant must slow for a turn from a road with single lane traffic onto a minor road (for example, onto an entry road to a residential area). The key is to select a location where slowing or stopping would not be expected by following drivers. If OB is assessed during preparation for a turn, the turn must not be one made by the majority of traffic. Other appropriate situations include slowing or stopping in preparation for turning onto a side street, turning onto a mid-block driveway, or pulling to the side of the road.
3. The speed limit must be high enough (30 mph or above) that the applicant's maneuver will create at least a 20-mph speed differential even when the applicant is traveling as much as 5 mph under the speed limit.
4. The applicant is required to check the rear-view mirror. During route selection, an experienced driver should check his own behavior in any potential test situation. If a mirror check is not required prior to braking, the situation should not be selected for assessing Observing: Behind.

Scoring Criteria

YES Applicant directs eyes to rear-view mirror after examiner gives the route instructions and before applying the brake. (Route instructions are the instructions that tell the applicant to turn, stop, etc., thus requiring applicant to check the mirror.)

NO Either of the following must be scored NO:

1. Applicant fails to check rear-view mirror after route instructions are given.
2. Applicant applies brake before checking rear-view mirror.

N/A Examiner not sure whether mirror check preceded brake application.

OR--Observing: Rear Quarter

Test Situation

1. This performance may be assessed in any zone in which the applicant is required to change lanes or merge.
2. Appropriate situations include changing lanes in preparation for a turn; changing lanes when approaching a lane drop or obstruction; and merging onto a highway from an access ramp or minor road.

3. This performance requires both a mirror and an over-the-shoulder check. If a merge situation is selected, an experienced driver should make sure the merge angle does not make either of these checks unnecessary.

Scoring Criteria

YES Both of the following are required for a YES score:

1. Applicant makes an over-the-shoulder check (turns head approximately 90°) in direction of lane change or merge, and
2. Applicant directs eyes to side mirror on correct side before movement toward new lane.

(If vehicle has no right side mirror, applicant must check inside rear-view mirror before a lane change or merge to the right. Order of checks is not considered in scoring.)

NO Any of the following must be scored NO:

1. Applicant fails to make over-the-shoulder check.
2. Applicant makes over-the-shoulder check in the wrong direction.
3. Applicant fails to check mirror.
4. Applicant checks wrong mirror.
5. Applicant initiates movement before making proper checks.

N/A Either of the following must be scored N/A:

1. Lane change or merge does not occur.
2. Examiner is unsure whether checks preceded movement of vehicle.

OS--Observing: Side

Test Situation

1. This performance may be assessed at an intersection where the applicant will be required to check for traffic to both sides prior to turning left or proceeding through the intersection.

2. Open intersections with visual obstructions present that make turning the head necessary are required. If sight distance is good in all directions, the applicant will be able to turn or cross without checking to the sides (turning his head 45° to each side), and the test situation will not be valid.
3. Intersections requiring the applicant to yield are inappropriate.

Scoring Criteria

YES Applicant checks to the sides (turns head approximately 45° in both directions) before turning left or proceeding through the intersection. (Left/right sequence of checks is not a factor in scoring.)

NO Any of the following must be scored NO:

1. Applicant does not check to the sides.
2. Applicant checks to the sides after entering the intersection.
3. Applicant checks to the side in one direction only.

N/A Examiner is unsure whether checks preceded movement of vehicle.

CL--COMMUNICATING: LANE CHANGE

Communicating: Lane Change tests the applicant's use of proper signaling prior to a lane change. Proper signaling is important for its own sake, and in providing an indirect measure of vehicle handling skills. Signaling turns at intersections is not included among the performance checks because applicants almost never fail to signal turns during a road test.

Performance

Applicant must signal prior to changing lanes or merging with other traffic.

Test Situation

1. This performance may be assessed in any situation in which the applicant must change lanes or merge onto another road.
2. Appropriate situations include changing lanes in preparation for a turn, changing lanes when approaching a lane drop or obstruction, and merging onto a highway from an access ramp or minor road.

Scoring Criteria

YES Both of the following are required for a YES score:

1. Applicant activates turn signal before movement toward new lane, and
2. Applicant cancels signal within 5 seconds after occupying new lane.

NO Any of the following must be scored NO:

1. Applicant fails to signal.
2. Applicant activates signal after movement toward new lane.
3. Applicant signals wrong direction.
4. Applicant fails to cancel signal within 5 seconds after occupying new lane.

N/A Either of the following must be scored N/A:

1. Lane change or merge does not occur.
2. Examiner is unsure when signal was activated or canceled.

RT--RESTRICTED TRAVEL

Restricted Travel assesses the applicant's compliance with travel restrictions imposed by roadway signs, traffic signals, lane markings, and rules of the road. Adherence to travel restrictions is important to safety. Moreover, this check provides an indirect measure of skill in that applicants who fail to comply with travel restrictions are frequently those that are too preoccupied with controlling the vehicle to notice the restrictions.

Performance

Applicant must obey a travel restriction imposed by signs, signals, or roadway markings.

Test Situation

1. This performance may be assessed at any point or zone on the route where traffic control markings, signs, or signals restrict vehicle travel.
2. Appropriate test situations are created by areas such as:
 - Pedestrian crosswalks
 - Restricted-use lanes
 - Left-turn channels
 - Islands (not raised)
 - Reversible lanes
 - Stop lines
3. Markings, signs, or signals denoting the restricted area must be clearly visible so that travel restrictions are obvious.

Scoring Criteria

YES Applicant keeps vehicle in a legal travel area. Wheels may touch the boundary of a restricted area but must not cross into the restricted area.

NO Either of the following must be scored NO:

1. Applicant does not keep vehicle in a legal travel area.
2. Wheels cross into restricted area.

N/A Any of the following must be scored N/A:

1. Traffic or other conditions prevent applicant from performing correctly (for example, pedestrian suddenly enters path of applicant's vehicle causing applicant to enter a restricted area).
2. Examiner is unsure whether vehicle wheels cross into restricted area.
3. Boundaries of restricted area are unclear or obscured.

APPENDIX A

ACCELEROMETER SPECIFICATIONS

An accelerometer package capable of measuring both lateral and longitudinal accelerations with reasonable accuracy is required for training license examiners to assess driver performance under certain test situations. If desired, these accelerometers may be used in the administration of actual road tests, although this is not required in the ADOPT.

Minimum requirements for an accelerometer package suitable for use as a training aid are listed below:

- o Sensitive to both plus and minus accelerations of .05 g's over a range of 0 to ± 5.0 g's.
- o Capable of measuring and displaying lateral (side to side) accelerations and longitudinal (forward and backward) accelerations.
- o Portable, e.g., battery-powered.
- o Separate housing of instruments (accelerometers) and displays (gauges for reading acceleration values).

While pre-assembled accelerometer packages can be obtained commercially, it is less expensive (and less difficult) to have them fabricated by a local electronics firm. This approach has two advantages:

- (1) Any servicing or repair needs are more readily satisfied.
- (2) Questions regarding use or calibration procedures can be answered more efficiently.

Although sensitive electronic instruments, accelerometers are relatively rugged and need no special care beyond that normally required of other electronic equipment. Care should be taken to avoid dropping them. A schematic detailing all components and connections required to assemble an accelerometer package meeting the previously-stated requirements appears at the end of this discussion. This schematic contains all the information needed by any electronics firm to build a single unit.

If "new" accelerometers are used, the cost of a single unit capable of measuring both longitudinal and lateral accelerations will be approximately \$300 to \$500. This cost can be reduced as much as \$150 if reconditioned (used) accelerometers are employed. Actual cost will vary somewhat as a function of labor costs and the "brand" of components used. The prototype packages employed in development of the ADOPT were assembled using reconditioned Genisco 5KR accelerometers (± 1 g); Model No. GMB2387-65, at a cost of \$150 per unit assembled.

Packaging

As has been discussed, the accelerometer units and the gauges for displaying acceleration values should be packaged separately. The method of packaging selected should be sufficient to protect this instrument from damage associated with normal handling, yet small enough to maintain their "portability." Prototype units were packaged in steel instrument boxes.

The "umbilical" containing all electrical connections linking the two boxes should be at least 6' in length. This will permit the accelerometer sending units to be placed in the floorboard of the vehicle and the readout gauges within easy reach of an examiner in the front or back seat.

Power Supply

A 9-volt NEDA-type battery is required to power the accelerometer package. This battery is mounted in the box containing the accelerometers and should provide sufficient power to operate the units for approximately 48 hours if they are left on continuously. This type of battery can be obtained at any electronics store. At least one or two spares should be kept on hand at all times.

Labeling Controls

The various controls diagrammed in the schematic are to be located on the rear of the unit containing the accelerometers, and labeled to facilitate their use. Labeling is best accomplished by the firm responsible for building these units. Controls for adjusting the longitudinal accelerometer should be labeled "ZERO-X". The accelerometer measuring lateral accelerations should be labeled "ZERO-Y". Two additional recessed screws should be labeled "Cal-X" and "Cal-Y", respectively. The pushbutton installed on the back of the case containing the accelerometers should be labeled "Battery Check."

If you desire, you can also label the front gauges installed in the case connected to the accelerometer units. The gauge which displays longitudinal accelerations should be labeled "Longitudinal" and the gauge displaying lateral accelerations labeled "Lateral."

Instructions

The following instructions will be used to calibrate or adjust accelerometers fabricated according to the attached specifications and labeled as previously discussed.

Initial Calibration

- (1) Turn on the unit by rotating the "ZERO-Y" control clockwise. Note that both gauges will then depict some acceleration value.
- (2) Place the box containing the accelerometer units on a flat and level surface.
- (3) Adjust the controls labeled "ZERO-X" and "ZERO-Y" until both gauges read "Zero."
- (4) Tilt the box containing the accelerometers to an angle of 30°. This is best accomplished using a plastic engineering triangle which can be purchased from any office supply company. It makes no difference which edge of the box is tilted first.
- (5) Observe the gauges once this box has been tilted at 30°. The needle on one of the gauges will move from its "0" value. By tilting the accelerometer to an angle of 30°, you are simulating an acceleration of .5 g's. Because the accelerometer is still out of adjustment, the needle which moved will not read .5 g's. Use the appropriate control (ZERO-X or ZERO-Y) to adjust this gauge until the needle reads .5 g's.
- (6) Now place the box containing the accelerometer flat on the surface as before. Using a small screwdriver, insert it into the appropriate hole and adjust the gauge you have been working on to read "0" by turning the screwdriver a few turns in either direction. If you have to turn the screwdriver more than 3 or 4 turns, you did not adjust the accelerometer properly in the above step.
- (7) Repeat Steps 2 through 5, tilting the case containing the accelerometer units in the "opposite" direction.
- (8) Repeat Steps 2 through 7, tilting the box containing the accelerometer units in the "crosswise" direction with respect to the first two calibrations.

Simply speaking, the box containing the accelerometer units must be tilted on all four edges at an angle of 30° and the "ZERO" controls adjusted as described until all gauges read either + or - .5 g's when tilted to the proper angle.

Repeat this calibration every week or so of operation.

Operation

Installation of the accelerometer package in the vehicle is very simple. Merely place the accelerometer box on the floor, close to the transmission hump. Tilt the box to the left and check the gauges to be certain that the gauge labeled "lateral accelerations" indicates an

acceleration to the left (the needle on this gauge will move to the left when the box is tilted to the left). If this gauge "deflects" in the opposite direction, or does not move at all, rotate the box 90° and tilt it to the left again. Keep repeating this procedure until the gauge labeled "Lateral" accelerations indicates an acceleration to the left. The accelerometer box is now located properly in the car.

The case containing the gauges can be placed on the dash, held in the lap, or located in the back seat.

With the car on level ground and standing still, use the ZERO-X and ZERO-Y controls to set each gauge to 0. The car can now be driven. The two gauges will register the forces of acceleration and braking, and those associated with making turns.

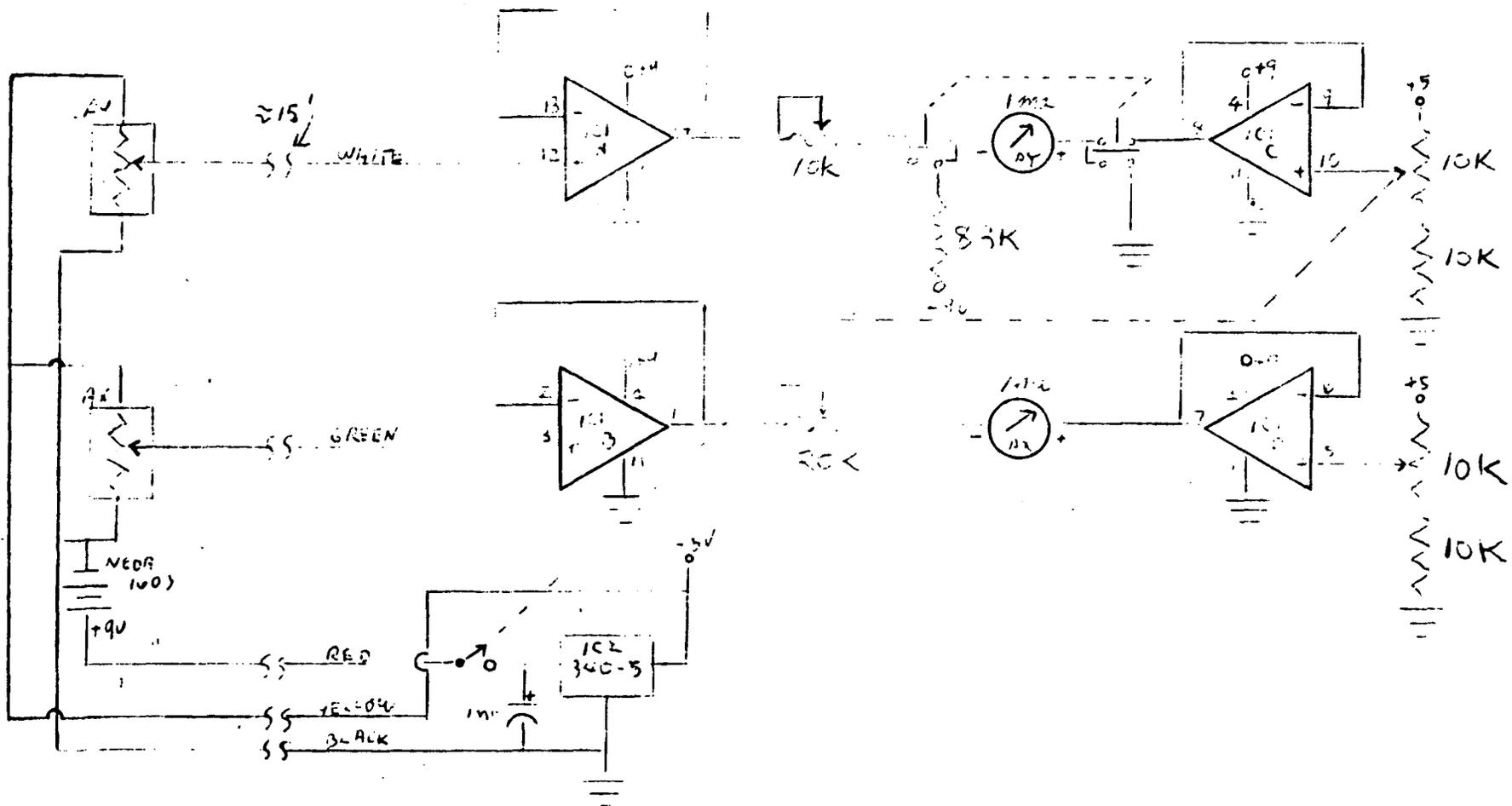
Be sure and turn off the battery pack when training has been completed to conserve the battery. Repeat this procedure when you are ready to re-use the accelerometer.

Checks and Cautions

The pushbutton located on the back of the control panel is provided to check the battery. Turn the package on with the ZERO-Y gauge and zero the gauges. Watch the gauge labeled "Lateral" accelerations. So long as this gauge indicates at least .3 g's when the battery condition button is pressed, the battery is okay.

If the battery is weak, disassemble the case containing the accelerometer units and replace the battery.

Always store the package in "upright" position and remove battery.



ACCELEROMETER SCHEMATIC DIAGRAM

APPENDIX B
 SAMPLE SCORE SHEET
 (portion only)

DIRECTIONS/REFERENCE	LOCATION	PERFORMANCE CHECKS				
		No.	CAT	YES	NO	N/A
Standard Parallel Parking Instructions	STATION LOT	1	HT	___	___	___
		2	HD	___	___	___
		3	HS	___	___	___
		4	HO	___	___	___
		5	HP	___	___	___
"At the street, turn right"	EXIT & ELM	6	GS	___	___	___
(At Elm & C) "Continue straight ahead"	ELM AT WEST C	7	BA	___	___	___
	ELM FROM WEST C TO F	8	MS	___	___	___
		9	LS	___	___	___
	ELM FROM TRAILER PARK ENTRANCE TO CUSTOM CABINETS	10	MS	___	___	___
		11	LS	___	___	___
"At next street turn left"	(Elm at Custom Cabinets)					
	ELM AT K PLACE	12	ST	___	___	___
	("normal" speed: XX mph)	13	MT	___	___	___
		14	LT	___	___	___
"Continue straight ahead"	(After turn on K Place)					
(K Place at 2nd speed sign)	K PLACE AT JUNIPER	15	OB	___	___	___
"Next street turn left"		16	ST	___	___	___
	("normal" speed: XX mph)	17	MT	___	___	___
		18	LT	___	___	___
	JUNIPER AT CURVE	19	SC	___	___	___
		20	MC	___	___	___
(G at Ivy) "Turn right"	G AT IVY	21	GS	___	___	___
Standard RS Instructions (Speed 25 mph)	(After turn on Ivy) Alt. loc.: Next speed sign					
Signal ref.: 25 mph sign/ Dist. ref.: factory sign		22	RS	___	___	___
"Next street turn right"	(Ivy at black mailbox)					
	IVY AT D	23	OB	___	___	___
		24	ST	___	___	___
	("normal" speed: XX mph)	25	MT	___	___	___
"Next street turn left"	(D after turn)					
	D AT JUNIPER	26	BA	___	___	___
		27	OS	___	___	___
		28	RT	___	___	___

APPENDIX C

IMPORTANT INFORMATION ABOUT YOUR ROAD TEST

READ THIS BEFORE TAKING THE ROAD TEST. IF YOU HAVE ANY QUESTIONS,
PLEASE DISCUSS THEM WITH THE EXAMINER BEFORE YOU START TO DRIVE.

GENERAL INFORMATION

During the road test, you must demonstrate your ability to control the vehicle. You will be expected to meet all safety and legal requirements. You must drive the vehicle only when and where it is legal and safe to do so.

SPEED

You will be expected to drive at a safe speed near, or at, the legal speed limit. You must not drive too fast or too slow.

USE OF LANES

You must stay in a proper lane at all times.

DISTANCE FROM OTHER VEHICLES

Keep a safe distance from cars on either side and from the vehicle ahead.

SIGNALING

You must signal each time you change direction while you are driving.

TURNING

For turns at intersections and on curves, you must stay in your lane and adjust to a safe and legal speed.

OBSERVING

You must check to the sides before entering an intersection, and you must use your mirrors and look over your shoulder before changing lanes. You must also check behind when you slow down or stop.

RIGHT-OF-WAY

You must yield the right-of-way when the law requires you to do so. At intersections, you must judge when it is safe to cross or turn. You should take the first safe gap in traffic, avoid causing other traffic to slow for you, and avoid holding up traffic behind.

STOPPING

Stops should be made gradually and smoothly. When stopping for stop signs and traffic lights, you must come to a complete stop before your vehicle enters the intersection. Stop behind stop signs and before the crosswalk. Stop as close as possible to stop signs and crosswalks so you can see clearly in all directions.

PARKING

You will be asked to parallel park. You will be scored on how well you handle the vehicle. You will also be scored on the time it takes you to park and the number of times you change the direction of your vehicle while you are parking.

RAPID STOP

The examiner will give you special instructions for making a Rapid Stop. You must control the vehicle and stop as quickly as possible without a skid.